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UNITED STATES NAVAL OBSERVATORY

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POSITIONS, AREAS, AND COUNTS OF SUNSPOTS

MARCH-APRIL, 1954

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These results are based upon measurements made at the Naval Observatory on plates secured either there or at the Mt. Wilson Observatory. The symbols used for the entries in the successive columns are as follows:

U.T., the epoch of observation in Universal Time.

No., the identifying number of the group assigned by Mt. Wilson.

Δl , the heliographic difference in longitude from the central meridian, measured positive to the west.

φ , the heliographic latitude, measured positive to the north.

ρ , the heliocentric angular distance from the line joining the centers of the Earth and Sun.

A , the true area of the umbra plus penumbra, expressed in millionths of the visible hemisphere.

s , the number of spots.

An asterisk means that no Mt. Wilson number was assigned. Plates secured at the Naval Observatory are indicated by N, and those at Mt. Wilson by M. The plate quality, which follows, is indicated by:

1, Poor; 2, Fair; 3, Good; 4, Very Good; 5, Excellent.

The following five quantities are listed successively at the end of each day, and give for that day:

1. The total number of groups, g .
2. The longitude of the central meridian, L_0 .
3. The latitude of the center of the disc, B_0 .
4. The total value of A .
5. The total value of s .

The mean daily area and the mean relative sunspot number, $r=10g+s$ are given at the end of the month.

These results are a continuation of those published in the *Monthly Weather Review* from February 1, 1927 to December 31, 1947.

MARCH

U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
1.750	11171	+45	-25	46	16	1		11172	-59	-7	59	36	1
M-3	11171	+46	-26	48	6	1		11172	-58	-8	58	24	1
	11171	+46	-24	47	12	2		(1) (150)	(-7)			88	6
	11171	+49	-25	51	71	2							
	(1) (294)	(-7)			105	6	13.694	11172	-49	-9	49	12	1
2.647	11171	+55	-24	56	73	2	M-3	11172	-48	-8	48	16	1
N-2	11171	+62	-23	63	97	1		11172	-46	-7	46	73	6
	(1) (282)	(-7)			170	3		11172	-46	-11	46	16	8
3.805	11171	+78	-23	79	121	2		11172	-45	-10	45	6	4
N-3								11172	-45	-7	45	170	1
	(1) (267)	(-7)			121	2		11172	-44	-8	44	97	1
4.606					0	0		(1) (137)	(-7)			390	22
N-3	(0) (256)	(-7)			0	0	14.689	11172	-37	-9	37	32	1
					0	0	N-3	11172	-36	-8	36	24	1
5.615					0	0		11172	-36	-10	36	32	1
N-3	(0) (243)	(-7)			0	0		11172	-35	-8	35	36	3
					0	0		11172	-35	-10	35	24	1
6.564					0	0		11172	-34	-7	34	73	2
N-3	(0) (231)	(-7)			0	0		11172	-34	-9	34	32	1
					0	0		11172	-30	-7	30	436	2
7.753					0	0		(1) (124)	(-7)			689	12
N-2	(0) (215)	(-7)			0	0	15.621	11172	-24	-10	24	97	3
					0	0	N-3	11172	-23	-8	23	97	2
8.621					0	0		11172	-23	-10	23	73	1
N-3	(0) (204)	(-7)			0	0		11172	-22	-9	22	48	3
					0	0		11172	-21	-7	21	16	2
9.635					0	0		11172	-20	-7	20	32	3
N-3	(0) (190)	(-7)			0	0		11172	-18	-7	18	145	1
					0	0		11172	-17	-6	17	242	1
10.564					0	0		(1) (111)	(-7)			750	16
N-4	(0) (178)	(-7)			0	0	16.642	11172	-10	-10	11	267	4
					0	0	N-2	11172	-9	-7	9	61	1
11.695					0	0		11172	-8	-7	8	36	1
M-1	(0) (163)	(-7)			0	0		11172	-6	-7	6	73	2
					0	0		11172	-5	-5	5	194	4
12.709	11172	-63	-9	63	16	2		(1) (98)	(-7)			631	12
M-2	11172	-62	-8	62	12	2							
							17.599	11172	+2	-10	4	194	2
							N-4	11172	+3	-8	4	121	5
								11172	+4	-6	4	32	2
								11172	+5	-6	6	6	1
								11172	+5	-5	6	12	2
								11172	+6	-4	7	32	3
								11172	+6	-7	6	12	1
								11172	+6	-6	6	12	1
								11172	+7	-5	7	24	1
								11172	+9	-5	10	194	2
								(1) (85)	(-7)			639	20
							18.636	11172	+16	-10	17	218	3

MARCH APRIL

U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
N-3	11172	+17	- 9	17	121	4	N-2						
	11172	+18	- 7	18	24	2		(0) (299)	(-7)			0	0
	11172	+19	- 6	19	97	3	29,607					0	0
	11172	+21	- 4	22	12	1	N-4						
	11172	+23	- 5	23	36	2		(0) (287)	(-7)			0	0
	11172	+25	- 5	25	194	1							
	(1)	(72)	(-7)		702	16	30,595					0	0
19,594	11172	+30	-10	30	121	2	N-3						
N-3	11172	+32	- 9	32	97	3		(0) (274)	(-7)			0	0
	11172	+35	- 4	35	12	1							
	11172	+36	- 5	36	12	1	31,675					0	0
	11172	+37	- 5	37	218	2	M-2						
	(1)	(59)	(-7)		460	9		(0) (260)	(-7)			0	0
20,695	11172	+45	-10	45	170	2		Mean for 31 days					
N-2	11172	+46	- 9	46	24	1		$A=182, r=8.9$					
	11172	+52	- 5	52	194	2	1,653					0	0
	(1)	(44)	(-7)		388	5	N-3						
21,669	11172	+58	- 9	58	109	3		(0) (247)	(-6)			0	0
N-2	11172	+66	- 5	66	170	1							
	(1)	(32)	(-7)		279	4	2,629					0	0
22,627	11172	+75	- 7	76	48	1	N-4						
N-1	11172	+80	- 4	80	194	1		(0) (234)	(-6)			0	0
	(1)	(19)	(-7)		242	2							
23,553					0	0	3,546					0	0
N-4							N-2						
	(0)	(7)	(-7)		0	0		(0) (222)	(-6)			0	0
24,583					0	0	4,669					0	0
N-4							N-2						
	(0)	(353)	(-7)		0	0		(0) (207)	(-6)			0	0
25,624					0	0	5,821					0	0
M-2							N-1						
	(0)	(339)	(-7)		0	0		(0) (192)	(-6)			0	0
26,825					0	0	6,669	11173	-80	- 5	80	12	1
N-4							N-3						
	(0)	(324)	(-7)		0	0		(1) (181)	(-6)			12	1
27,617					0	0	7,601	11173	-70	- 5	70	6	1
M-3							N-4	11173	-68	- 5	68	16	2
	(0)	(313)	(-7)		0	0		(*)	- 7	-12	9	12	1
28,670					0	0		(2) (168)	(-6)			34	4
							8,599	11173	-52	- 5	52	32	2

APRIL

U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		°	°	°					°	°	°		
N-2							20,631	11176	+53	0	54	16	1
	(1) (155)	(-6)			32	2	N-3						
								(1) (356)	(-5)			16	1
9,606	11173	-37	- 5	37	36	2							
N-2	11174	+36	+ 3	38	24	2	21,595					0	0
	11174	+37	+ 3	39	12	1	N-3						
	(2) (142)	(-6)			72	5		(0) (343)	(-5)			0	0
10,628					0	0	22,608					0	0
N-2							N-4						
	(0) (128)	(-6)			0	0		(0) (330)	(-5)			0	0
11,658					0	0	23,561					0	0
N-3							N-4						
	(0) (115)	(-6)			0	0		(0) (318)	(-5)			0	0
12,615					0	0	24,717					0	0
N-3							M-2						
	(0) (102)	(-6)			0	0		(0) (302)	(-5)			0	0
13,644					0	0	25,739					0	0
N-3							N-2						
	(0) (88)	(-6)			0	0		(0) (289)	(-5)			0	0
14,624					0	0	26,567					0	0
N-3							N-4						
	(0) (76)	(-6)			0	0		(0) (278)	(-5)			0	0
15,604	11175	+42	- 3	43	24	1	27,651					0	0
N-4							N-4						
	(1) (63)	(-6)			24	1		(0) (263)	(-4)			0	0
16,591	11175	+54	- 4	54	12	1	28,661					0	0
M-4	11175	+57	- 4	57	6	2	N-2						
	(1) (50)	(-5)			18	3		(0) (250)	(-4)			0	0
17,881					0	0	29,742					0	0
N-2							N-1						
	(0) (32)	(-5)			0	0		(0) (236)	(-4)			0	0
18,649					0	0	30,658					0	0
N-2							N-1						
	(0) (22)	(-5)			0	0		(0) (224)	(-4)			0	2
19,619					0	0							
N-2													
	(0) (10)	(-5)			0	0							

Mean for 30 days
 $A = 7, r = 3.6$

6/18/54